0699

CALIFORNIA TROUT

KEEPER OF THE STREAMS

SEP 16 1999

COMMENTS ON CALFED PHASE 2 REPORT

Submitted by
California Trout, Inc.

September 10, 1999

CALIFORNIA TROUT

KEEPER OF THE STREAMS

STATE HEADQUARTERS
870 Market Street, #859
San Francisco, CA 94102
Phone: 415-392-8887
Fax: 415-392-8895

Nick Di Croce
Board of Governors

1988 Old Mission Dr. B1-717
Solvang, CA 93463
Phone/Fax: (805) 693-0221

troutnk@aol.com

0699(2)

CALIFORNIA TROUT

KEEPER OF THE STREAMS

September 10, 1999

Mr. Lester Snow, Executive Director
CALFED BAY-DELTA PROGRAM
1416 Ninth Street, Suite 1155
Sacramento CA 95814

Subject: CALFED Revised Phase 2 Report, Draft Programmatic EIS/EIR, June 1999

Dear Mr. Snow:

Our organization has reviewed the latest Phase 2 Report prepared by the CALFED Bay-Delta Program and has the attached comments to offer for your consideration prior to the planned Record of Decision.

California Trout, Inc. (CalTrout) is a statewide nonprofit fisheries conservation organization with a membership of more than 5,000 citizens. Since our founding in 1972, we have been continuously engaged with agencies such as the California Department of Fish and Game, the Los Angeles Department of Water and Power, the U.S. Forest Service, the National Marine Fisheries Service and other agencies and utilities in order to restore ecosystems and improve the condition of fisheries and rivers throughout the state. CalTrout is also a member of the Environmental Water Caucus.

Our main interest in the CALFED Bay-Delta Program is your Ecosystem Restoration Program (ERP). Although we recognize that all of the CALFED Programs are interrelated and that the Ecosystem Restoration Program is dependent on actions contained in the other programs, the ERP is our main focus and the main subject of our comments. We view the ERP as a once-in-lifetime opportunity to partially restore the damaged river systems and declining fish populations that have resulted from past water development in the state. Our overall assessment of the ERP is that it can result in improvements for wildlife and their habitats, but we have serious concerns that the ERP will not be able to achieve satisfactory recovery or restoration goals if implemented as described in the Phase 2 Report.

We view the last half-century of water development in California as a pendulum that has swung too far in the direction of economic development without adequate safeguards by public agencies for the ecological consequences of that growth and development. We view the ERP as an opportunity to restore a healthy balance between ecology and economics for future generations of Californians. We work under the assumption that public agencies must be stewards of the Public Trust Doctrine, and we know that good ecology equates with good economics.

Bay Area Office: 870 Market Street, Suite 859 • San Francisco, CA 94102 • (415) 392-8887
Fax: (415) 392-8895 • http://www.caltrout.org

0699(3)

CALIFORNIA TROUT

KEEPER OF THE STREAMS

In the water management areas (water use efficiency, water transfers and water quality), we feel that CALFED is missing an historic opportunity to reform how water is used in California, particularly by the agricultural industry. CALFED's unwillingness to confront agricultural water use inefficiency and agricultural water quality issues, although politically difficult, is a major failure of the program. Our view is that CALFED needs to recognize that water is a finite resource and, despite projected population growth, we cannot continuously "develop" water supplies in the same manner that has caused the current issues that now face the state. We believe that California has already developed adequate water supplies to handle growth; CALFED's responsibility to future generations is to find ways to effectively conserve existing water supplies and to assure its redistribution for future needs. We believe that CALFED, as currently planned, does not face nor meet this challenge. As quoted in your Phase 2 preface from Vaclav Havel, we too believe in the "strength...to continually try new things." We do not believe that CALFED has yet shown enough strength.

We believe that CALFED needs to state, in clear language, that further surface storage options and canal structures around the periphery of the Delta are not included in the Phase 2 Preferred Alternative. No qualifiers.

Our detailed comments are attached to this letter. We feel that it is vital to the future of California that CALFED succeed in its stated mission to: "develop a long-term comprehensive plan that will restore ecological health and improve water management for beneficial uses of the Bay-Delta system." As stakeholders, we do not believe that CALFED has built enough of our views into the Phase 2 plan and that the CALFED program perpetuates the ecological imbalances that now exist.

We would be pleased to create a dialogue with you related to our viewpoints and solutions for ecological health, beneficial uses and good economics. We hope that our constructive criticisms are helpful as you prepare for the Record of Decision during the year 2000.

Nick Di Croce
Board of Governors

Bay Area Office: 870 Market Street, Suite 859 • San Francisco, CA 94102 • (415) 392-8887
Fax: (415) 392-8895 • http://www.caltrout.org

0699(4)

CALIFORNIA TROUT

KEEPER OF THE STREAMS

Distribution List for California Trout Comments on CALFED Revised Phase 2 Report

Dion Aroner, California Assembly
Bruce Babbitt, Department of the Interior
Patricia Beneke, Department of the Interior
Barbara Boxer, U.S. Senate
John Burton, California Senate
Lois Capps, U.S. House of Representatives
Jim Costa, California Senate
David Cottingham, Department of the Interior
Gray Davis, Governor
Dianne Feinstein, U.S. Senate
Tom Hannigan, Department of Water Resources
Tom Hayden, California Senate
Robert Hight, Department of Fish and Game
Hannah-Beth Jackson, California Assembly
Maurice Johannessen, California Senate
Patrick Johnston, California Senate
Fred Keeley, California Assembly
James Lecky, National Marine Fisheries Service
Mike Machado, California Assembly
Felicia Marcus, Environmental Protection Agency
Mary Nichols, The Resources Agency
Roger Patterson, Bureau of Reclamation
Byron Sher, California Senate
Michael Spear, U.S. Fish and Wildlife Service
Antonio Villaraigosa, California Assembly

Bay Area Office: 870 Market Street, Suite 859 • San Francisco, CA 94102 • (415) 392-8887
Fax: (415) 392-8895 • http://www.caltrout.org

ECOSYSTEM RESTORATION

The CALFED Ecosystem Restoration Program (ERP) is the most comprehensive plan that we have ever examined to restore the overall ecological health of the complete Bay-Delta ecosystem. The intent to "restore ecological processes and to increase or improve habitats to support stable, self-sustaining populations of species," which is stated in the ERP Strategic Plan, is in keeping with CalTrout's mission. Focusing a majority of ERP actions on improving ecological processes and habitats on endangered species in order to reduce conflicts in the Bay-Delta system, as stated in the ERP Strategic Plan, is similar to our organization's Strategic Conservation Plan. The ecosystem restoration projects already undertaken by CALFED are commendable and have shown good intent in moving in the directions of the CALFED goals and values stated in the ERP.

The condition of California's riverine systems will influence the continued growth of the state's major industry: Recreation and Tourism. Now at $60 billion annually and growing, the affect that improved rivers, estuaries, wildlife, beaches and their surrounding habitats can have on that industry far exceeds the modest investments that are contemplated in the current version of the ERP. When looked at from a business point of view, and considering California lifestyle trends, investments in ecosystem restoration actions will provide the highest return on investment among the CALFED alternatives. Actions that improve the state's environment and contribute to the state's major growth industry are better investments than planning for large structures that will further damage the state's environment.

Steelhead Trout Populations and Habitats

The long-term objective of restoring Steelhead Trout populations to 40,000 fish, as shown in Volume 1 of the ERP, is an improvement over earlier versions. While it is known that baseline data is scarce, it is also known and verified that Chinook Salmon populations were between 1 to 2 million and that Steelhead populations exceeded those of Chinook. Therefore, the 40,000 objective is conservative. The 40,000 objective is also based on populations that were already in decline; these are "post disturbance" levels. CALFED needs to recognize all of these factors and commit to raise the Steelhead objective numbers if future restoration actions show that more than 40,000 can be achieved. As stated in the ERP Strategic Plan, Page 28: "Targets are something to strive for but can change over the life of the project." A commitment is needed from CALFED to adaptively manage this number upward from a current baseline and to commit to higher objectives for the Record of Decision. For the plan to be meaningful, the following kinds of commitments are needed:

- A commitment of target numbers for various stocks (major rivers and streams) and various life history patterns (summer or winter runs). This would result in

targets for individual rivers rather than a single number for all Central Valley Steelhead.

- A commitment to current baseline numbers for major rivers so that progress can be monitored in the same way.
- A commitment to establish interim target dates for the accomplishment of these objectives.

On the issue of stream flows, the targets shown in the ERP, although politically feasible and an improvement over some current flows, may not be adequate to achieve the goals of restoration and long term sustainability of native species. The last column of Table 1 illustrates this point.

Table 1 – Comparison of River Flows
(Cubic Feet Per Second)

River	Unimpaired Annual Flows[1]	ERP Target Flow[2]	Target Flows as a Percent of Unimpaired Flows
Sacramento	10,338	8,000-10,000 +	77% - 97%
Feather	5,518	2,150	39%
Yuba	2,981	1,012	34%
American	3,329	2,500	75%
Mokelumne	921	285	31%
Stanislaus	1,416	560	40%
Tuolumne	2,305	283	12%
Merced	1,158	60	5%
San Joaquin	2,095	No Target	--

In response to earlier versions of the ERP, the American Fisheries Society[3] and CalTrout both pointed out the need for cooler summer temperatures in Central Valley rivers for Steelhead and the vital need by Steelhead for cooler water than is needed by Salmon, which do not remain in the streams as long as Steelhead. The current version of the ERP is a significant improvement in regard to the subject of Central Valley stream temperatures and the recognition of the differing needs of steelhead and salmon. We concur with the general temperature targets of 56 F or lower for spawning and 60 F or lower for over summering areas contained in the ERP. While the increased stream flow

[1] Department of Water Resources, Projected Unimpaired Flow Data.
[2] CALFED Bay-Delta Program. Ecosystem Restoration Program Plan, Volume 2 – Ecological Management Zone Visions. Target flows from Pages 176, 288, 321, 369, 433, 434. Numbers used were for normal and above normal years only; does not include pulse or event flows.
[3] Swift, Camm C. PhD. President, American Fisheries Society, Cal-Neva Chapter. Correspondence to Lester Snow. July 1, 1988

targets will have some positive affect on stream temperatures, further work and research is needed to determine if the target flows are adequate for achieving these temperature targets. As shown in the above table, it is questionable that the ERP target flows will actually provide adequate stream temperatures. The ERP should contain individual water temperature targets for major streams as well as the stated stream flow targets in order to provide a basis for evaluation.

As recognized in the CALFED ERP, the single most limiting factor for Steelhead populations in the Central Valley is blocked access to an estimated 82% to 95% of the historical spawning and rearing habitat due to impassable dams. We concur with CALFED's statement in the ERP, Volume 1 that "removal of barriers provides the highest probability of restoration success." CALFED's major steelhead deficiency is the lack of actions that will attempt to restore access to historical habitat above large dams on any major tributaries. Although CALFED actions are proposed or are occurring that will improve access on smaller rivers with small diversion dams (McCormick-Saeltzer Dam on Clear Creek, Red Bluff Diversion on the Sacramento, Clough Dam on Mill Creek, Centerville Dam and Butte Creek Dam on Butte Creek), there are no plans to study the feasibility of anadromous fish passage by major dams on larger rivers, such as the San Joaquin, Fresno, Tuolumne, Stanislaus, Calaveras, Mokelumne, American, or Feather. The possible removal of Englegright Dam on the Yuba is the only exception. The feasibility of trap and truck operations, fish elevators, or fish locks needs to be thoroughly investigated in order to provide steelhead access to the kinds of habitats that will assure recovery in significant numbers. We concur with CALFED's conclusion that "trap, haul, and release approaches to reintroduction should not be dismissed."

On the subject of Englebright Dam, CalTrout concurs with the ERP Volume 2 statement that "the Yuba River has greater potential than most (Central Valley tributaries) to reestablish access to a substantial amount of former habitat." We view Englebright Dam as a marginally useful dam and, despite local opposition, recommend that CALFED undertake a serious look at the feasibility of removing Englebright Dam in order to accomplish the ecosystem recovery goals for Steelhead in the Central Valley.

The Environmental Water Account

CalTrout concurs with the importance of an Environmental Water Account (EWA) concept as a contributor to the success of ecosystem restoration. The undisputed major cause of ecosystem damage throughout the Central Valley and Bay-Delta system is the loss of water for stream flows; the major need for successful ecosystem restoration is more water for the environment. The goal of an Environmental Water Account should be to change stream flows for the benefit of the ecosystem restoration.

The importance of purchasing water on an open market for the environment will help advance the concept of market driven forces on water pricing and the subsequent water conservation benefits that can result from market-priced water. Although that benefit is not stated in the Phase 2 plan, CalTrout views that potential, along with an "appropriately constrained" water transfer market, as forces that can be beneficial to the environment.

On the other hand, the description of the potential operation of an EWA that is contained in the Phase 2 report indicates that EWA moneys would be used to reimburse agriculture for reduced exports due to environmentally restricted pumping. This is not the intent of an *Environmental* Water Account. Reduced exports should be made up, when they need to be, in other ways than taking moneys set aside for ecosystem restoration. The EWA lacks a baseline for determining the criteria for environmental water. The intent of a CALFED Environmental Water Account should be to provide new water for the environment; water from sources such as the CVPIA should not be counted as CALFED Environmental Account water.

Additionally, CALFED's modeling assumptions indicate that water conserved by urban communities will be provided to agriculture as surplus water. This would invalidate the benefits of water conservation for the state. A better alternative would be to credit the Environmental Water Account for all or a part of conserved water from all sources, agricultural or municipal. CALFED needs to reexamine its plans and assumptions for the use of conserved water. The two main sources of environmental water need to be water purchases (transfers) and water conservation; building additional dams or reservoirs as a justification for environmental water is not appropriate and contrary to any of CALFED's goals for ecosystem restoration.

CalTrout feels that the initial funding being planned ($50 million) is inadequate as a starting point for the Environmental Water Account. At current market rates for water, this might provide approximately 250,000 acre feet per year – clearly not enough water to handle the modest stream flow actions contemplated in the ERP Volume 2. As a return on investment, $100 to $200 million per year is a far better investment than paying the equivalent annual payments for a typical multi-billion dollar, multi-year construction project for a single major dam. Investment in ecosystem restoration is a preferred alternative to more investment in ecosystem damage.

A final note on the Environmental Water Account. Although conceptually desirable from an environmental point of view, the EWA lacks the specifics for Stage 1 implementation. In view of the inability to provide environmental water under legislation with such clear intent as the Central Valley Project Improvement Act, the plan for the Environmental Water Account lacks any degree of assurances to the environmental community. It lacks agreements with agricultural and municipal water districts that sufficient water will

actually be provided for environmental purposes. Decades of subsequent legal actions can be expected as a result. While recognizing the difficulty of this task, implementation of the Environmental Water Account needs ironclad agreements between the differing factions prior to a Record of Decision.

Future Governance

We believe that the responsibility for the Ecosystem Restoration Program should be given to a new governing, non-regulatory, entity that will have responsibility for selecting projects to be undertaken and have oversight for the accomplishment of all ERP actions. This new entity would be responsible for the management of the Environmental Water Account and the activities of the existing scientific and technical integration panels and the ecosystem roundtable types of activities.

Removing any entity from political pressures is desirable and difficult to achieve. The best way to accomplish this objective is to develop a strategic direction firmly focused on recovery activities, to continue the strong presence of scientific and technical input into project selection, and to develop a detailed set of criteria for the selection of recovery and restoration projects.

We believe that a totally new governing entity focused strictly on ecosystem recovery is the best way to transition from the Phase 2 ERP Visions, Strategic Objectives and Targets to meaningful actions for recovery.

Summary of Recommended Actions

The following table is a summary of the CalTrout actions recommended in the above Ecosystem Restoration section:

Table 2 – CalTrout Recommended Actions
Ecosystem Restoration Program

Subject	Action
Steelhead	Increase the overall Steelhead recovery objective above 40,000 fish
	Set recovery objectives by rivers (stocks and life history)
	Establish baseline data by rivers
	Establish interim dates for recovery targets
	Research impact of increased stream flows on stream temperatures
	Develop individual stream temperature targets
	Develop actions to restore access above major dams
	Investigate feasibility of removal of Englebright Dam
Environmental Water Account	Change assumptions and plans for use of conserved water so that returns for the environment are assured
	Increase initial funding to a range of $100 to $200 million
	Reach policy agreements with constituents prior to the ROD
Governance	Develop a new, non-regulatory entity for ERP implementation
	Provide specific strategic goals and criteria for project selection

WATER MANAGEMENT

We are in strong disagreement with many of the aspects of CALFED's water management directions. As stated in our cover letter, we believe that California has already developed an adequate water supply for the future and that CALFED must find new ways to provide water "supply" without resort to the techniques that were developed in the last century. The challenge for CALFED is to set goals and objectives with the assumption that existing supplies can be better utilized and redistributed without the need to create new surface storage and water diversion canals. This kind of new thinking would shift the entire paradigm for CALFED and lead to an increased emphasis on non-structural solutions for water supply reliability.

CALFED's Phase 2 list of 12 potential dams and reservoirs to be considered during the next phase is a clear indication that further water diversions north of the Bay-Delta and increased export pumping south of the Bay-Delta is a major part of the CALFED Preferred Alternative. We cannot visualize how increased diversions and pumping are going to achieve CALFED goals to restore the Bay-Delta.

Water Supply and Demand

CALFED's water demands are based on the faulty, inflated water demand projections contained in the California Water Plan Update, Bulletin 160-98. These demand projections have been questioned by numerous organizations and have been discredited in public testimony before the California legislature.[4] More realistic demand figures coupled with more aggressive water conservation targets would provide the water "supply" required for future growth without the need for investments in additional surface storage. The Environmental Water Caucus has previously produced recommendations to CALFED describing this approach in detail.[5] We recommend that CALFED adopt these recommendations in place of the Phase 2 preferred alternative which is heavily weighted in favor of additional surface storage.

Although there is controversy over projected supply versus demand shortfalls for the next quarter century, all of the shortfalls can be handled with aggressive water conservation goals for both agriculture and urban users. Instead of the "potential savings" of 13% for agriculture and 16% for urban use, an increase of just a few percentage points for both users will handle any of the shortfall numbers that have been published. Actual recent

---

[4] Testimony by Dennis O'Connor, Assistant Director, California Research Bureau. Joint Hearing – Senate Agriculture and Water Committee, Assembly Parks and Wildlife Committee and Senate Select Committee on CALFED. February 23, 1999.

[5] Environmental Water Caucus. Blueprint for an Environmentally and Economically Sound CALFED Water Supply Reliability Program. November 5, 1998.

experience in both the agricultural and municipal environments has already shown that higher goals are achievable. CALFED needs to establish water conservation targets for both agricultural and urban areas.

We take issue with the "Water Supply Reliability Goals & Objectives" table shown in the revised Phase 2 Report which indicates that water conservation as applied to agriculture is a "tool (that) provides moderate contribution to meeting objectives." It should be classified as a "strong contributor" and objectives should be set accordingly.

One of the major failings of the CALFED program is the unwillingness to challenge the inefficient and wasteful water practices of the California agricultural industry, contrary to the statements contained in the CALFED Water Use Efficiency Program Plan. All of the indicators of this inefficiency are well known and well documented:

- More than 80% of California's developed water supply goes to agriculture.
- No more than 15% of California agriculture uses higher technology water saving methods such as drip technology or micro sprinkler technology.
- More than 50% of agriculture's water is used for low value crops, which contribute little to the $24 billion value of agricultural products.
- The artificially low price of water for agriculture often makes investment in water saving techniques or technology a poor investment.
- Marginal land is farmed due to the over abundance of cheap water for agriculture.
- The absence of mandatory conservation planning for the agricultural sector compared with mandatory requirements for urban areas.

The challenge for CALFED is to mandate strict - not voluntary – agricultural conservation goals and to redistribute the "saved" water to achieve CALFED's goals for accommodating growth and recovering the Bay-Delta ecosystem. This would require significant changes to outdated State Water Project contract provisions that currently return conserved municipal water to agricultural water districts for their use. The regulatory and legal challenges are many, but CALFED cannot be permitted to sidestep this issue and bow to agricultural pressures for unlimited access to the states limited water supplies.

Satisfying future demand through the construction of additional surface storage is not an economically feasible alternative nor is it a good return on investment for California citizens. The Phase 2 Report is lacking in any cost/benefit analysis that would logically lead to a preferred alternative. The best cost alternative to additional surface storage is the increased utilization of groundwater storage, beyond that which is indicated in the CALFED Phase 2 Report. The cost of groundwater storage – at $60 to $120 per acre foot compared with new surface storage at $300 to $3,000 – is the main indicator that CALFED has not adequately considered the costs of their planned directions. The environmental damage avoidance associated with groundwater storage is a major benefit

when compared with new dams; CALFED has not placed enough value on this alternative compared with surface storage options. Although CALFED has recognized the lesser costs and lessened environmental damage caused by groundwater storage options, the Phase 2 Report clearly places more emphasis on surface storage options. CALFED needs to place increased emphasis and actions on the development of groundwater storage and management as an alternative to surface storage. The Stage 1 target volume of 500,000 acre feet of groundwater storage needs to be significantly increased.

Water Transfers

We concur with the CALFED action to establish a water transfer market. However, to be meaningful, a water transfer market must have more than a clearing-house function, as described in the Phase 2 Report. We believe that a more active market-driven water market brokerage operation must be established to facilitate water transfers.

We believe that economics and financial incentives will provide the impetus for change in water usage more effectively than further regulation. To that end, we concur with the recommendations to CALFED made by the Natural Heritage Institute for the establishment of market-driven water transfers market as the most effective method for achieving beneficial changes and efficiency in agricultural water usage.[6]

Water Quality

In the actions described in Tables 3 and 4 of the Water Quality Program Plan, we see no actions that would investigate the feasibility of establishing agricultural water recycling and reclamation plants, as is accomplished in urban areas. With the major issues related to polluted agricultural return flows throughout the Central Valley, we recommend that CALFED investigate the feasibility of having such facilities constructed and operated in conjunction with agricultural water district operations.

In the earlier version of the Phase 2 report, CALFED's Alternative 3 included a Peripheral Canal (Isolated Facility). While it may be true that water taken directly from the Sacramento River around the Delta will result in higher quality water for the diverted portion, it is impossible to visualize how removal of additional fresh water inflows will have anything but deleterious effects on the Bay-Delta. Water exports and water diversions are among the main causes of water quality issues for the Delta. It is not clear how removing additional water from the Delta can possibly improve the health of the Bay-Delta. We recommend that CALFED delete any plans for a Peripheral Canal and the "screened diversion at Hood" on the Sacramento River that is called for in the current Phase 2 Report.

---

[6] The Natural Heritage Institute. An Environmentally Optimal Alternative for the Bay-Delta. October 1998. Pages 54-65.

The earlier stated plan for CALFED to apply the "soft path" (non structural) solutions for water management and to defer any decisions on surface storage dams, reservoirs and canals for a period of 7 to 10 years is in keeping with CALFED goals and objectives and should be incorporated as part of the Phase 2 Report prior to the Record of Decision.

Summary of Recommended Actions

The following table is a summary of the CalTrout actions recommended in the above Water Management section:

Table 3 – CalTrout Recommended Actions
Water Management

Subject	Action
Water Management	Delete plans for new surface storage options in Stage 1
Water Supply and Demand	Adopt the water conservation recommendations of the Environmental Water Caucus' *Blueprint*
	Establish water conservation targets for agricultural and municipal water areas
	Reclassify agriculture as a "strong contributor" to water conservation
	Increase the groundwater storage goal above 500,000 acre feet
Water Transfers	Establish a market-driven water transfer brokerage as outlined by the Natural Heritage Institute
Water Quality	Investigate feasibility of agricultural reclamation and recycling facilities
	Delete plans for an isolated facility and a screened diversion at Hood from the Preferred Alternative